

REMARKS

This Amendment is in response to the Office Action mailed on February 21, 2008. With this Amendment, claim 24 is amended. Claims 24-26 are presented for reconsideration and allowance along with allowed claims 1, 8-15 and 18-20.

Claim Rejections -35 U.S.C. § 103

In the Office Action, claim 24 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Wiselogel et al. (US 6,130,796), hereafter referred to as “Wiselogel”, in view of Troemel (US 6,239,937). As amended, the method of claim 24 includes the step of “identifying a last usable track on a recording media surface, beyond a default maximum track, as a function of a position error signal (PES) value, wherein the position error signal represents a distance from a read head's current position to a desired target position.” (Emphasis added). The method also includes the step of “defining a standoff band of tracks relative to the last usable track to obtain an achieved maximum track on the surface.”

In the Office Action, the Examiner acknowledged that “Wiselogel fails to particularly disclose the last usable track (the ID crash stop) is identified as a function of a position error signal value.” However, the Examiner asserted that Troemel provides this teaching, and that claim 24 would be obvious over a combination of Wiselogel and Troemel. Specifically, regarding the teaching of Troemel, the Examiner stated that:

However, Troemel discloses an adaptive last-track positioning process wherein the last usable track is determined based on a position error signal, that is when the head is detected on being on rough surface, the writing is inhibited, and thus determining the last-used track (see col.5, lines 45-50 and fig.3, the last data track 107n is the inner diameter track and col.3, lines 61-64).

Applicants respectfully traverse the Examiner’s statement that Troemel teaches the use of a position error signal to identifying a last usable track on a recording media surface. Therefore, the rejection of claim 24 is again traversed, and it is respectfully requested that this claim be allowed.

While Troemel does disclose an adaptive last-track positioning process, the process of Troemel is not based on the position error signal as asserted in the Office Action. Instead, Troemel teaches that a head to disk interference sensing means senses when the head is positioned over the transition or landing zones using frequency modulation in a test readback signal, but not in a position error signal. The adaptive last-track positioning process disclosed by Troemel is used to aid in writing servo patterns on a disk. See, e.g., Troemel at col. 5, lines 26-29 (stating “[a]ccordingly, FIG. 2 shows process 200 comprising a servo writing step 201 which writes servo patterns on disk 100, including by example, a digital track number and an analog signal indicating positions from track center.”) To identify when a transition zone, which is the start of the landing zone, has been entered, Troemel monitor interference between the head and disk. See, e.g., Troemel at col. 5, lines 29-33. To monitor the interference between the head and disk, Troemel references, as an example of a technique which can be employed, a related patent application (Ser. No. 08/940,929 by Tan, et al.), which later issued as U.S. Patent No. 6,008,640. As stated in Troemel, in the Tan et al. reference, “the frequency modulation **of a test readback signal** is monitored to detect head to disk interference.” See Troemel at col. 5, lines 39-41. Using for example this technique from Tran, Troemel then teaches that “[t]he monitoring of the head to disk interference is continuous ... and servo writing continues ... based on lack of detection of a predetermined threshold amount of interference.” See Troemel at col. 5, lines 44-50. Troemel goes on to teach that “[u]pon detection of the threshold head to disk interference amount ... the system responds by initiating a stop servo writing command ... which results in a recording step ... where the last data-track is determined.” See Troemel at col. 5, lines 50-54.

Thus, while Troemel teaches that frequency modulation of a test readback signal be monitored, there is no teaching in Troemel that the readback signal be the position error signal. In fact, Troemel teaches that the frequency modulation of a test readback signal is monitored during a servo writing step. Further, Troemel teaches that “based on lack of detection of a predetermined threshold amount of interference,” servo writing continues. One of ordinary skill in the art would understand that a position error signal is generated using servo data written on a disc. Since this monitoring of the test readback signal is during the servo writing process, clearly the test

readback signal cannot be the position error signal. Consequently, Troemel also fails to teach the limitation of “identifying a last usable track on a recording media surface, beyond a default maximum track, as a function of a position error signal (PES) value,” as claimed in claim 24.

However, to further distinguish the teachings of Troemel from independent claim 24, this claim is amended to further define a difference between a position error signal and a test readback signal. Specifically, claim 24 is amended to recite the limitation of “wherein the position error signal represents a distance from a read head's current position to a desired target position.” This amendment is fully supported by Applicant's specification at page 8, lines 13-14 (stating “[t]he PES represents the distance (or error) from the read head's current position to a desired target position.”). Clearly, Troemel does not teach identifying a last usable track on a recording media surface, beyond a default maximum track, as a function of a position error signal value so defined.

Since the Examiner acknowledges that Wiseloge fails to teach that the last usable track is identified as a function of a position error signal value, and since Troemel similarly fails to provide such a teaching, it is respectfully maintained that independent claim 24 is in condition for allowance. It is therefore respectfully requested that the rejection of claim 24 be withdrawn.

Allowable Subject Matter

In the Office Action, claims 25-26 were objected to as being dependent upon a rejected base claim, but were again indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 1, 8-15 and 18-20 were again stated to be allowed for the reasons stated in the office action mailed on 8/30/2006. The Examiner's continued indication of allowable subject matter in claims 25 and 26 is appreciated. However, it is respectfully believed that independent claim 24 is in condition for allowance, and that the objection to claims 25 and 26 should be withdrawn based on their dependence from this allowable claim.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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